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MARINE CORPS ORDER P3500.64

From: Commandant of the Marine Corps
To: Distribution List

Subj: AVIATION TRAINING AND READINESS (T&R) MANUAL, C-20
(SHORT TITLE: C-20 T&R MANUAL)

Ref: (a) MCO P3500.14G

Encl: (1) LOCATOR SHEET

1. Purpose. To publish policies, procedures and standards regarding the training of C-20 aircrew per reference (a).

2. Action. Commanders will ensure that C-20 aircrew training, qualifications, and certifications are accomplished per the instructions and guidance in this Manual. This Manual prescribes a unique template to provide the aviation commander with standardized POI. As such, this Manual deviates from the Five Paragraph Order Format directed by MCO 5215.1H.

3. Recommendations. Recommended changes to this Manual are invited and will be submitted via the syllabus sponsor and the appropriate chain of command to: Commanding General, Training Command (C 473), Marine Corps Combat Development Command, 3300 Russell Road, Quantico, VA 22134-5001.

4. Reserve Applicability. This Manual is applicable to the Marine Corps Reserve.

5. Certification. Reviewed and approved this date.

EDWARD HANLON, JR.
By direction

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RECORD OF CHANGES

Log completed change action as indicated.

Change Number	Date of Change	Date Entered	Signature of Person Incorporated Change

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CHAPTER 1

C-20 PILOT

FIGURES

*** * N O T E * ***

Aircrew coordination will be briefed for all flights and aircrew positions.

CHAPTER 1

C-20 PILOT

100. POI FOR BASIC, TRANSITION, CONVERSION, AND REFRESHER PILOT

1. Prerequisite. A pilot must have a minimum of 1000 hours total pilot time to be designated as a C-20 Transport Aircraft Commander and a minimum of 500 hours total pilot time to be designated as a C-20 Transport Second Pilot.

WEEKS	COURSE/PHASE	ACTIVITY
3	Initial Ground School/Flight Simulator	Contract Aircrew Training (CACT)
1	Ground School Preflight Procedures	MCAF/VR-51
8	Flight Training	MCAF/VR-51

110. GROUND TRAINING COURSES OF INSTRUCTION

COURSE	ACTIVITY
Cockpit/Simulator Instruction	CACT
Preflight Procedures	MCAF/VR-51

111. SQUADRON LEVEL TRAINING

Orientation
Local Course Rules
Combined Exam
Emergency Egress
Preflight Inspection
Cockpit Familiarization and Crew Coordination
Start/Taxi/Shutdown Procedures
Postflight Inspection
Systems Brief
International/Trans Oceanic Exam
NATOPS Open and Closed Book Examinations

112. FLIGHT SIMULATOR TRAINING

STAGE	FLIGHTS	HOURS	PERCENT
Familiarization	**7**	**28.0**	**25.0**

120. FLIGHT TRAINING FOR BASIC, TRANSITION, CONVERSION, AND REFRESHER PILOT

1. Mission Capable Training

STAGE	FLIGHTS	HOURS	PERCENT
Basic Qualification	-	-	25.0
Familiarization and Instruments	2	4.0	18.0
Night Familiarization	1	2.0	6.0
Copilot Familiarization	2	4.0	6.0
T3P Check	1	2.0	5.0
Total for Phase	**6**	**12.0**	**60.0**

2. Mission Ready Training

STAGE	FLIGHTS	HOURS	PERCENT
Copilot Review	5	10.0	10.0
T2P Check	1	2.0	5.0
Total for Phase	**6**	**12.0**	**15.0**
Accumulation	**12**	**24.0**	**75.0**

3. Mission Qualification Training

STAGE	FLIGHTS	HOURS	PERCENT
TAC Familiarization	3	6.0	10.0
Maintenance Check Flight	1	2.0	5.0
TAC Qualification flight	1	2.0	5.0
Total for Phase	**5**	**10.0**	**20.0**
Accumulation	**17**	**34.0**	**95.0**

4. Full-Mission Qualification Training

STAGE	FLIGHTS	HOURS	PERCENT
International/Over Water TAC check	1	12.0	5.0
Total for Phase	**1**	**12.0**	**5.0**
Total Accumulation	**18**	**46.0**	**100.0**

121. FLIGHT TRAINING FOR INSTRUCTOR PILOTS

STAGE	FLIGHTS	HOURS
Instructor Under Training Requirements, Qualifications, and Designations	4	8.0
IUT Check flight	1	2.0
Total	**5**	**10.0**

130. SIMULATOR TRAINING

1. Purpose. To familiarize all pilots with C-20G normal cockpit procedures, crew coordination, systems operation and limitations, emergency procedures and to introduce instrument flight procedures.

2. General

a. Aircrew coordination shall always be stressed in training all pilots.

b. Pilots will take turns flying two hours in the left seat as Pilot in Command and two hours in the right seat as Co-Pilot for each simulator flight session.

3. Simulator Training. (7 Periods, 28.0 Hours).

SFAM/INST-100 4.0 T,C,R 2F3

Goal. Simulator configuration, characteristics and initial familiarization.

Requirement. Perform and identify appropriate level of automation through Mode awareness and intervention techniques.

Accomplish required preflight planning/conduct brief and debrief. Perform aircraft normal procedures where applicable. Perform SPZ-8000 tasks to include: Position initialization, build and store flight plan, performance initialization, direct to a fix (intercept course), hold at a fix, exit, resume, and delete, arrival and landing performance initialization. Perform aircraft normal takeoff procedures with autothrottles (balanced and un-balanced field length). Perform normal area departure procedures. Perform steep turn flight maneuvers. Perform approach to stall/stall recovery (clean, approach, and landing configurations). Perform unusual attitudes and recovery maneuvers (demo only). Perform non-precision approach procedures (arrival, assigned radials, missed approach, and holding). Perform precision approach procedures (area arrival, assigned radials, missed approach, normal landing). Perform abnormal/emergency procedures for in-flight powerplant shutdown, immediate airstart (Segment 1), in-flight powerplant shutdown, normal airstart (Segment 2). Perform normal landing operations. Perform after landing procedures.

SFAM/INST-101 4.0 T,C,R 2F3

Goal. Simulator configuration, characteristics and initial familiarization.

Requirement. Same as SFAM/INST-100

SFAM/INST-102 4.0 T,C,R 2F3

Goal. Introduce emergency procedures.

Requirement. Perform and identify appropriate level of automation through Mode awareness and intervention techniques. Accomplish required preflight planning/conduct brief and debrief. Perform aircraft normal procedures where applicable. Perform SPZ-8000 tasks to include: Position initialization build and store a flight plan, performance initialization, direct to a fix (intercept course), hold at a fix, exit, resume, and delete. Perform takeoff procedures: Balanced and unbalanced field lengths, crosswind, instrument takeoff and departure. Windshear on takeoff. Perform holding. Perform normal and missed approach procedures to include VOR and NDB. Perform abnormal/emergency procedures to include: Electrical (BUS faults), Converter Fail, Dual Converter Fail, Abex operation. Arrival and landing performance initialization. Windshear on approach. Perform landing operations to include: Crosswind, rejected landing to a normal missed approach.

SFAM/INST-103 4.0 T,C,R 2F3

Goal. Abnormal/Emergency operations procedures.

Requirement. Perform and identify appropriate level of automation through Mode awareness and intervention techniques. Accomplish required preflight planning/conduct brief and debrief. Perform SPZ-8000 tasks to include: Position initialization, IRS align fault, build and store a flight plan, performance initialization, track FMS course, direct to a fix

(intercept course), program holding, present position holding, exit, resume, and delete, single engine performance, performance planning. Perform takeoff procedures: rejected (aborted) takeoff, maximum weight takeoff with engine failure after V1. Perform area departure. Perform holding when applicable. Peform CAT I ILS approach (hand flown single engine to landing). Perform abnormal/emergency procedures to include: Engine FLT Loop Alert, Engine Fire on Ground, One engine Go-Around, Approach Aid Fail. Arrival and landing performance initialization. Perform landing operations to include: Single engine landing from a precision approach. Shutdown checklist.

SFAM/INST-104 4.0 T,C,R 2F3

Goal. Abnormal/Emergency operations procedures.

Requirement. Perform and identify appropriate level of automation through Mode awareness and intervention techniques. Accomplish required preflight planning/conduct brief and debrief. Perform SPZ-8000 tasks, to include: Position initialization, build and store flight plan, performance initialization, track FMS Course, direct to a fix (intercept course), performance planning. Perform takeoff procedures: Instrument takeoff, crosswind takeoff. Perform area departure. Perform approaches: Localizer only (GS out), VOR approach. Perform missed approach (autothrottles engaged). Perform abnormal/emergency procedures to include: combined hydraulic failure (pump failure), yaw damper failure, thrust reverser unlock, flap alternate operation, steer-by-wire fail, landing gear malfunction, flap control circuit breaker, anti-skid fail, brake pedal fail, blown tire. Arrival and landing performance initialization. Perform landing operations from circling approach.

SFAM/INST-105 4.0 T,C,R 2F3

Goal. Abnormal/Emergency operations procedures.

Requirement. Perform and identify appropriate level of automation through mode awareness and intervention techniques. Accomplish required preflight planning/conduct brief and debrief. Perform SPZ-8000 tasks to include: position initialization, build and store flight plan, performance initialization, track FMS course, direct to a fix (intercept course), program holding, present position holding, exit, resume, and delete, change destination waypoint (P/B/D), performance planning. Perform takeoff procedures. Perform area departure. Stalls and steep turns. Perform holding. Perform the following approaches: ILS, localizer back course to a missed approach, with flap/stab failure, NDB no flap approach and landing. Perform abnormal/emergency procedures to include: Flight Control Manual (jammed ailerons), Stab/Flap fail, Flaps fail up, combined hydraulic system fluid loss, loss of both hydraulic systems (FLT system loss on final approach). Arrival and landing performance initialization. Perform landing operations to include: No flap approach and landing, maneuver to landing with a powerplant failure from a visual approach. Shutdown checklist. Other flight procedures: Air hazard avoidance.

FAM/INST-106 4.0 T,C,R 2F3

Goal. Simulator Proficiency Check.

Requirement. Perform and identify appropriate level of automation through Mode awareness and intervention techniques. Accomplish required preflight planning/conduct brief and debrief. Perform SPZ-8000 tasks to include: Position initialization, build and store flight plan, performance initialization, track FMS course, direct to a fix (intercept course), program holding, present position holding, exit, resume, and delete, performance planning, change destination airport. Perform takeoff procedure (windshear). Perform area departure. Stalls and steep turns (if required). Perform an ILS approach. Perform abnormal procedures to include: Tuck and mach buffet, maximum rate of descent, ice accumulation on airframe, pneumatic/pressurization system, fuel and oil, air conditioning, fire protection (Fault Loop Alert with engine fire), avionics (DADC Miscompare), yaw damp, mach trim compensation, maximum rate of descent, DU, Fan Fail, followed by DU Hot. Perform emergency procedures to include: Emergency descent, fire in cabin or cockpit area, smoke in baggage compartment, personal and passenger emergency equipment, aircraft evacuation. Arrival and landing performance initialization. Perform landing operations. Shutdown checklist.

140. FLIGHT/SIMULATOR PERFORMANCE REQUIREMENTS

1. Purpose. To familiarize all pilots with C-20G flight characteristics, normal cockpit procedures, crew coordination, systems operations/limitations, emergency procedures, and gain designation as a Transport Third Pilot.

2. General

a. The time required to train a C-20G pilot from Transport Third Pilot (T3P) to Transport Aircraft Commander (TAC) is listed in the NATOPS Flight Manual, but will vary from that minimum depending on previous pilot experience. Training beyond T3P is accomplished to a great extent in conjunction with operational flights. Upgrade checks for T2P, TAC, and IP will be accomplished on dedicated training flights.

b. Minimum crew shall consist of an instructor pilot, pilot under instruction (PUI) and crew chief for all training flights.

c. All flights shall be flown with a designated NATOPS Instructor.

d. Local commands are granted the authority to waive requirements that are not applicable to the local operating environment.

e. Flights annotated with an "N" shall be flown at night with the intent that these night flights will be flown at least 30 minutes after official sunset. Flights annotated with "(N)" may be flown at night.

f. All flights annotated with an "E" shall be evaluated per T&R Manual, Administrative, Chapter 4, Paragraph 4004.3.b.

3. Refly Interval. Figure 1-1 shows refly interval and Mission Readiness Percentage for MOS 7553.

4. Aircrew Evaluation Flights. All pilots are required to have a NATOPS evaluation form completed annually upon completion of the following:

a. NATOPS Check (RQD-600).

b. Instrument Check (RQD-601).

c. Any flight in the mission qualification, mission ready, or full mission qualification phase as recommended by the Squadron Standardization Board.

5. Aircrew Coordination. Aircrew coordination shall be briefed for all flights and/or events.

141. MISSION CAPABLE TRAINING

1. Familiarization and Instruments

a. Purpose. To instruct PUI in aircraft ground handling: VFR and IFR flight characteristics and limitations, with emphasis on instrument flight procedures and proper response to aircraft emergency situations.

b. Crew Requirement. PUI/IP/CC.

c. Flight Training. (6 Flights, 12.0 Hours).

FAM/INST-l00 2.0 T,C,R 1 ACFT

Goal. C-20G flight introduction.

Requirement. Brief review of takeoff, landing, and enroute procedures, APU operation and usage, limitations, emergencies (APU Fire on Ground), engine start, abnormal engine start indications, clear engine procedures, ignition system, fire detection/protection system, engine fire in flight, emergency evacuation, takeoff performance, Min vs. Flex EPR takeoff, Max vs. Min V1 performance, FMS initialization, FMS normal/abnormal indications. Exterior/interior inspection. Engine start/taxi, normal start, cockpit checklists. Takeoff and climb, flaps 20 degrees, autothrottle, Flex EPR takeoff (Demo), PUI accomplishes copilot duties (stress VFR lookout). Enroute, FMS usage for enroute descent planning. Descent/penetration. Approaches, two engine (must complete a minimum of two approaches), ILS/PAR, TACAN/VOR, missed approach. Landings, touch and go (four minimum) (brief procedures), full stop (demo).

FAM/INST-101 2.0 T,C,R 1 ACFT

Goal. Review normal flight maneuvers.

Requirement. Brief electrical system operation, limitations, associated annunciator lights, dual alternator/converter failure, AC/DC bus fault light, L-R alternator bearing failure, EFIS/EICAS system operation, EFIS/EICAS abnormals, check PFD message, check V speeds message, CPL data invalid, oxygen system, cockpit oxygen systems, cabin oxygen system, flight instruments, Radar/TCAS/EGPWS/IRS's/FMS, climb and range performance, maximum thrust settlings, driftdown. Aborted takeoff. Exterior/interior inspection. Engine start/taxi,

normal start, review unsatisfactory start, review clear engine procedures. Taxi (demo simulated aborted takeoff while taxiing). Takeoff and climb, flaps 20 degrees, autothrottle takeoff. Introduce airwork, steep turns, approaches to stall (clean, approach turn, and wind shear recovery), GPWS alerts. Climb/enroute, FMS usage. Approaches (two minimum) (two engine), ILS, localizer back course (discuss if unavailable), circling approach, missed approach. Landings, touch and go (four minimum) (brief procedures), full stop (manual spoiler).

FAM/INST-102 2.0 T,C,R 1 ACFT

Goal. Introduce emergency procedures.

Requirement. Brief hydraulics/flight controls system operation and limitations, associated annunciator lights. Emergencies, Ground Spoiler message in flight, L-R Reverse Unlock message in flight, combined hydraulic system fluid loss, landing gear-alternate operation, flight control manual, stall barrier 1-2 message, stab flap fail message, brake/anti-skid system operation and abnormals, anti-skid fail message, brake fail message, brake pedal message. Exterior/interior inspection. Engine start/taxi, normal start (discuss abnormal indications), taxi (practice simulated abort while taxing). Takeoff and climb, flaps 20 degrees, manual throttle takeoff, V1 cut. Airwork, steep turns, approaches to stall (clean, approach turn, and wind shear recovery), GPWS alerts. Climb/enroute, FMS usage. Approaches (two minimum), PAR, PAR (single engine), missed approach (two engine/single engine). Landings, touch and go (four minimum) (brief procedures), full stop (single engine landing/reverse).

2. GCA/Night Familiarization

a. Purpose. To become proficient in night operations and emergency responses at night.

b. Crew Requirement. PUI/IP/CC.

c. Flight Training. (1 Flight, 2.0 Hours).

NFAM-110 2.0 T,C,R 1 ACFT N

Goal. Review FAM/INST maneuvers at night.

Requirement. Brief pneumatics, cabin pressurization, system operation, limitations, associated annunciator lights, emergency descent procedure, loss of automatic pressurization control, left or right bleed air hot, air conditioning system operation, associated annunciator lights, smoke and fumes evacuation, cowl and airfoil anti-ice system operations, limitations, associated annunciator lights, aft equipment hot, left or right cowl anti-ice overheat, left or right wing hot message, left or right wing temp low message, normal cockpit lighting/emergency lighting. Exterior/interior inspection. Engine start/taxi, normal start. Takeoff and climb, flaps 20 degrees, manual throttle takeoff. Climb/enroute, FMS usage. Approaches, PAR/ILS/GPS/ASR/VOR/NDB/missed approach. Landings, touch and go (four minimum) (brief procedures), full stop.

3. Copilot Familiarization

a. Purpose. To instruct the PUI in the responsibilities and functions of the pilot flying in the right seat.

b. Crew Requirement. PUI/IP/CC.

c. Flight Training. (1 Flight, 2.0 Hours).

FAM/INST-120 2.0 T,C,R 1 ACFT

Goal. PUI in right seat to perform duties of copilot.

Requirement. Brief fuel system, operations and limitations, associated annunciator lights, left or right fuel pressure low, left or right fuel filter message, left or right fuel level low message, oil system operation, associated annunciator lights, left or right oil pressure message, manual performance calculations. Exterior/interior inspection. Engine start/taxi, normal start. Takeoff and climb, flaps 20 degrees, manual throttle, V1 cut. Airwork, steep turns, approaches to stall (clean, approach turn, wind shear recovery), GPWS alerts. Climb/enroute, FMS usage. Approaches, (minimum of two approaches, one of which must be single engine), coupled ILS, PAR/ILS (single engine), PAR/ILS, BC localizer (discuss if unavailable), missed approach (two engine and single engine). Landings, touch and go (four minimum) (brief procedures), full stop.

4. T3P Check

a. Purpose. To qualify the PUI as copilot (T3P) for operational flights in the C-20G aircraft.

b. Crew Requirement. PUI/IP/CC.

c. Prerequisite. NATOPS open and closed book examinations.

d. Flight Training. (1 Flight, 2.0 Hours).

CK-130 2.0 T,C,R E 1 ACFT

Goal. Evaluation sortie.

Requirement. PUI to demonstrate the ability to meet NATOPS qualification per NATOPS evaluation criteria. The flight evaluation is designed to measure with the maximum objectivity the degree of standardization demonstrated by the PUI and to ensure safety of flight.

142. MISSION READY TRAINING. Pilots undergoing instruction in this level will have gained the appropriate level of operational experience and been recommended by the Standardization Board to commence 200 level training. This level will allow the Co-pilot to gain experience in the left seat of the C-20G as well as expand aircraft systems knowledge and gain further operational experience in the aircraft to prepare them for the 300 level training and designation as an Aircraft Commander.

1. Copilot Review

a. Purpose. To review procedures, normal and emergency, and the responsibilities of the copilot.

b. Crew Requirement. T3P/IP/CC.

c. Flight Training. (6 Flights, 12.0 Hours).

FAM/INST-200 2.0 T,C,R 1 ACFT

Goal. Refine copilot performance.

Requirement. Brief review of takeoff, landing and enroute procedures, Flex EPR takeoff, APU operation and usage, limitations, APU fire in flight, APU exceedance message. Engine, ignition system and limitations, air start envelope, fire detection/protection, abnormal engine start indications on start, clear engine procedures, starter valve malfunction, engine fire on the ground, aborted takeoff, takeoff performance, Flex EPR takeoff, balanced field computation, adverse conditions, FMS, “what-if” function, “cross points” function, FMS messages. Interior/exterior inspection. Engine start/taxi, normal start, taxi, steering, normal braking, thrust, turn radius. Takeoff and climb, flaps 20 degrees, flex EPR, autothrottle takeoff. Climb/enroute, FMS usage. Airwork, steep turns, approach to stalls (clean, approach turn, wind shear recovery), GPWS alerts. Descent/penetration. Approaches, (two minimum) (two engine), ILS/PAR, TACAN/VOR, missed approach. Landings, touch and go (four minimum) (brief procedures), full stop, auto spoiler.

FAM/INST-201 2.0 T,C,R 1 ACFT

Goal. Refine copilot performance.

Requirement. Brief electrical system operation and limitations, associated annunciator lights, dual alternator/converter failure, AC/DC bus fault light, L-R alternator bearing fail, EFIS/EICAS system operation, abnormals, check PFD message, check V speeds message, CPL data invalid, cockpit oxygen system, cabin oxygen system, flight instruments, Radar/TCAS/EGPWS/IRS’s/FMS, climb and range performance, maximum thrust settings, driftdown, aborted takeoff. Interior/exterior inspection. Engine start/taxi, normal start, review unsatisfactory start, review clear engine procedures. Taxi (demo simulated aborted takeoff while taxiing). Takeoff and climb, flaps 20 degrees, autothrottle takeoff. Climb/enroute, FMS usage. Airwork, steep turns, approaches to stall (clean, approach turn, wind shear recovery), GPWS alerts. Approaches (two minimum) (two engine), ILS, localizer back course (discuss if unavailable), circling approach, missed approach. Landings, touch and go (four minimum) brief procedures, full stop (manual spoiler).

FAM/INST-202 2.0 T,C,R 1 ACFT

Goal. Refine copilot performance.

Requirement. Brief hydraulics/flight controls system operation and limitations, associated annunciator lights, Ground Spoiler message in flight, L-R Reverser Unlock message in flight, Auxiliary Hyd Hot message, landing gear-alternate operation, flight control manual, total hydraulic failure, Stab Flap Fail message, Single Rudder Limit message, Stall Barrier 1-2 Fail message, brakes/anti-skid system operation, Anti-Skid Fail message, Brake Fail message, Brake Ovht message, Brake Maintenance Required message. Exterior/interior inspection. Engine start/taxi, normal start (discuss abnormal indications), taxi (practice simulated abort while taxiing). Takeoff and climb, flaps 20 degrees, manual throttle takeoff, V1 cut. Climb/enroute, FMS usage. Airwork, steep turns, approaches to stall (clean, approach turn, wind sheer recovery), GPWS alerts. Approaches (two minimum), PAR, PAR (single engine), ASR, missed approach (single/two engine). Landings, touch and go (four minimum) brief procedures, full stop (single engine reverse).

FAM/INST-203 2.0 T,C,R 1 ACFT

Goal. Refine copilot performance.

Requirement. Brief pneumatics, cabin pressurization system operation and limitations, associated annunciator lights, emergency descent procedure, loss of automatic pressurization control, left or right engine hot message, left or right pylon hot message, air conditioning system operation and associated annunciator lights, smoke and fumes evacuation, smoke detect message, left or right cooling turbine hot message, cowl and airfoil anti-ice system operation and limitations, associated annunciator lights, left or right pitot heat fail message, left or right cowl pressure low message, left or right wing hot message, left or right wing temp low message, windshield anti-icing operation, pitot static system heating. Exterior/interior inspection. Engine start/taxi, normal start. Takeoff and climb, flaps 20 degrees, auto throttle takeoff. Climb/enroute, FMS usage. Approaches (two minimum), PAR/ILS (single and two engine), localizer, ASR/VOR/NDB, missed approach (single/two engine). Landings, touch and go (four minimum) (brief procedures), no flap (low approach only), full stop.

FAM/INST-204 2.0 T,C,R 1 ACFT

Goal. Refine copilot performance.

Requirement. Brief fuel system operation and limitations, associated annunciator lights, left or right fuel pressure low, Left or Right Fuel Filter message, Left or Right Fuel Level Low message, oil system operation, associated annunciator lights, Left or Right Oil Pressure message, performance, manual performance calculations, FMS landing data, FMS takeoff data. Exterior/interior inspection. Engine start/taxi, normal start. Takeoff and climb, flaps 20 degrees, manual throttle, V1 cut. Airwork, steep turns, approaches to stall (clean, approach turn, wind shear recovery), GPWS alerts. Climb/enroute, FMS usage. Approaches (two minimum), coupled ILS, PAR/ILS (single engine),BC localizer, missed approach (single/two engine). Landings, touch and go (four minimum) (brief procedures), full stop.

2. T2P Check

a. Purpose. To qualify the T3P as a T2P copilot for operational flights in the C-20G aircraft.

b. Crew Requirement. T3P/IP/CC.

c. Prerequisite. NATOPS open and closed book examinations.

d. Flight Training. (1 Flight, 2.0 Hours).

CK-210 2.0 T,C,R E 1 ACFT

Goal. Evaluation sortie.

Requirement. T3P to demonstrate the ability to meet the NATOPS evaluation criteria. Flight is designed to measure with maximum objectivity the degree of standardization demonstrated by the PUI and the PUI's ability to fly from the left seat and handling of the aircraft under any type of circumstance.

143. MISSION QUALIFICATION TRAINING. Pilots undergoing instruction in this phase of training will have gained the appropriate level of operational experience in the C-20G aircraft as a Co-pilot, been recommended by the Standardization Board to start the TAC flight syllabus, and demonstrated the judgement and maturity required of an Aircraft Commander.

1. TAC Familiarization

a. Purpose. To review all previously covered items and ensure that the T2P is adequately prepared for a TAC check.

b. Crew Requirement. T2P/IP/CC.

c. Flight Training. (3 Flights, 6.0 Hours).

FAM/INST-300 2.0 T,C,R 1 ACFT

Goal. Upgrade the T2P to TAC.

Requirement. Brief review of takeoff, landing, and enroute procedures, systems limitations, APU, engines, ignition, fire detection/protection, fuel and oil systems, abnormal engine start, cold start, cross bleed start, start valve malfunction, external start, APU emergencies, engine fire (on ground and in flight), abort, air start envelope (APU/Engine), decision making, takeoff performance, Flex EPR vs. Rated EPR, balanced field, obstacle clearance, contaminated runway, high altitude takeoff, short field runway. Exterior/interior inspection. Engine start/taxi, normal start and taxi. Takeoff and climb, flaps 20 degrees, manual throttle, V1 cut. Airwork, steep turns, approaches to stall (clean, approach turn, wind shear recovery), GPWS alerts. Enroute, FMS usage. Approaches (two minimum) (single/two engine), ILS/VOR, missed approach (single/two engine). Landings, touch and go (brief procedures), full stop, auto spoiler.

FAM/INST-301 2.0 T,C,R 1 ACFT

Goal. Upgrade the T2P to TAC.

Requirement. Brief electrical system and limitations, annunciator lights and emergencies, EFIS/EICAS, cockpit oxygen system, cabin oxygen system, radar, IFF, TCAS, EGPWS, NAV/COMM radios, climb and range performance, maximum thrust settings, single engine range, decision making, preflight planning, Minimum Equipment List (MEL), cargo loading/configurations/weight and balance, NAVSUP 505, foreign clearance guide, Customs/Agriculture, OPARS, FMS/Cruise performance, "Perf Plan" function, "Single Engine" function, "Position Sensors" page. Exterior/interior inspection. Engine start/taxi, normal start, review unsatisfactory start, review clear engine procedures, taxi, practice abort procedures. Takeoff and climb, flaps 20 degrees, manual throttle takeoff, V1 cut. Climb/enroute, FMS usage. Airwork, steep turns, approaches to stall (clean, approach turn, wind shear recovery), GPWS alerts. Approaches (single/two engine), ILS/VOR, missed approach (single/two engine). Landings, touch and go (brief procedures), full stop, manual spoiler.

FAM/INST-302 2.0 T,C,R 1 ACFT

Goal. Upgrade the T2P to TAC.

Requirement. Brief hydraulic systems, limitations, associated annunciator lights, emergencies, flight controls, brakes/anti-skid, "Combined Hydraulic Hot" message, "Stall Barrier 1-2 Fail" message, combined hydraulic system fluid loss, no-flap approach and landing, decision making, wind shear, de-icing, anti-icing, other adverse weather, polar/high latitude NAV, VFR due regard, landing performance, adverse conductors, short runway, high altitude. Exterior/interior inspection. Engine start/taxi, normal start, (discuss abnormal indications), taxi. Takeoff and climb, flaps 20 degrees, manual throttle takeoff, V1 cut. Climb/Enroute, FMS usage. Airwork, steep turns, approaches to stall (clean, approach turn, wind shear recovery), GPWS alerts. Approaches (single/two engine), PAR/ASR, missed approach (single/two engine). Landings, touch and go (brief procedures), no flap landing (to low approach only), full stop (single engine reverse).

FAM/INST-303 2.0 T,C,R 1 ACFT

Goal. Upgrade the T2P to TAC.

Requirement. Brief pneumatics/air conditioning system, limitations, emergencies, associated annunciator lights, airfoil/engine anti-ice system, emergencies, associated annunciator lights, windshield anti-ice, pitot heat system, emergencies, associated annunciator lights, decision making, Wing 3710 instructions, squadron SOP, RON responsibilities, scheduling authorities (NALO, JOSAC, etc.), reports/HAZREPS, VIP handling. Exterior/interior inspection. Engine start/taxi, normal start. Takeoff and climb, flaps 20 degrees, simulate T3P right seat takeoff, V1 cut. Climb/enroute, FMS usage. Airwork, steep turns, approaches to stall (clean, approach turn, wind shear recovery), GPWS alerts. Approaches, coupled ILS, PAR/ILS (single/two engine), BC localizer (discuss if unavailable), missed approach (single/two engine). Landings, touch and go (brief procedures), full stop (simulate T3P right seat landing).

2. TAC Check

a. Purpose. To upgrade the T2P to TAC for operational flights in the C-20G aircraft.

b. Crew Requirement. T2P/IP/CC.

c. Prerequisite. NATOPS open and closed book examinations.

d. Flight Training. (1 Flight, 2.0 Hours).

CK-310 2.0 T,C,R E 1 ACFT

Goal. Evaluation flight.

Requirement. T2P to demonstrate the ability to meet NATOPS evaluation criteria for TAC. The flight evaluation is designed to measure with the maximum objectivity the knowledge and abilities of the PUI.

3. FCF Check

a. Purpose. To train and qualify the PUI for designation as a Functional Check Pilot upon qualification as a TAC. The flight will not be completed until the PUI has been recommended to commence the TAC syllabus. The PUI will fly from the right seat.

b. Crew Requirement. T2P/IP/CC.

c. Prerequisite. Recommendation to commence the TAC syllabus.

d. Flight Training. (1 Flight, 2.0 Hours).

FCF-304 2.0 T,C,R E 1 ACFT

Goal. The intent of this syllabus flight is to train and qualify the PUI for designation as a Functional Check Pilot upon qualification/designation as a TAC. The flight shall not be completed until the PUI has been recommended to commence the TAC syllabus. To achieve the maximum training possible, the PUI shall fly in the right seat.

Requirement. Brief crew brief, FCF checklist review, maintenance control/QA brief, review emergency procedures and limitations, MEL, crew coordination. Flight, exterior/interior inspection, flight procedures IAW FCF checklist. Post flight procedures, maintenance control/QA debrief, completion of proper documentation.

144. FULL-MISSION QUALIFICATION TRAINING

1. Purpose. To provide the TAC a formal training syllabus for qualification as a squadron International/Overwater Transport Aircraft Commander.

2. Crew Requirement. TAC/IP/CC.

3. Prerequisite. Designation as a C-20G TAC, participated in at least one overseas logistics flight/detachment with multiple legs as a co-pilot, and completed the MCAF International/Overwater procedures open book exam.

4. Flight Training. (2 Flights, 12.0 Hours).

NAV-400 6.0 T,C,R 1 ACFT

Goal. PUI performs extended range/overwater/international flight operations.

Requirement. Brief/Overview, flight procedures/conduct of flight, MNPS airspace, NOPAC, and NAT Tracks, review CFLSWINST 3710.4 (International/Overwater guide), view 4B87/3 slide presentation, review FLIP charts and documents, review Jeppessen enroute/term charts, ICAO NAV and COMM procedures knowledge, various emergency procedures/ditching, HF procedures and utilization, navigation systems, overwater fuel planning and terminology, OPARS computer flight plan, manual fuel planning, use of the overwater master document (preflight, enroute, and postflight), knowledge of overwater checklist, review of overwater operations, MEL. Enroute, chart work, HF procedures, conduct of flight. Debrief. Checkflight Recommendation.

NAV CK-410 6.0 T,C,R E 1 ACFT

Goal. Evaluation of TAC to perform extended range/overwater/international flight operations.

Requirement. TAC to demonstrate the ability to manage a crew and aircraft on an extended, over water flight under ICAO flight rules.

150. INSTRUCTOR AND SPECIAL FLIGHT/SIMULATOR PERFORMANCE REQUIREMENTS

1. Purpose. To provide a formal training syllabus for qualification as a squadron instructor pilot (IP) in the C-20G aircraft. The IP syllabus is designed to enable the individual to gain experience prior to being recommended for NATOPS Instructor.

2. Crew Requirement. IUT/IP/CC.

3. Prerequisite. Must be a designated C-20G TAC. Recommended by the Standardization Board. Complete Instructor Pilot Syllabus Discussion Period.

4. Flight Training. (5 Flights, 10.0 Hours).

IUT-500 2.0 T,C,R 1 ACFT

Goal. Instruction introduction (IUT in right seat).

Requirement. Brief flight procedures and conduct of flight. Interior/exterior inspection (complete preflight and ditching drill). Engine start/taxi, battery start, taxi. Takeoff and climb, V1 cut, SID or radar vectors. Airwork, steep turns, approach stall series/GPWS alerts, emergency descent. Climb/enroute, FMS instruction. Enroute descent or penetration. Approaches, precision and non-precision (two engine/single engine), circling approach, missed approach. Landings (VFR pattern).

IUT-501 2.0 T,C,R 1 ACFT

Goal. Instructor training (IUT in jump seat). The purpose of this flight is for observation only. The IUT will be in the jump seat observing an instructional event. The IUT will observe all facets of the evaluation, including the brief and debrief.

Requirement. Evaluating pilot will determine description of events monitored and systems/techniques discussed.

IUT-502/503 2.0 T,C,R 1 ACFT

Goal. Instructor training (IUT will conduct a syllabus training flight).

Requirement. Same as IUT-500.

IUT CK-504 2.0 T,C,R E 1 ACFT

Goal. Instructor qualification/standardization flight.

Requirement. Demonstrate the requisite instructional ability and standardization expected of an instructor pilot.

151. SPECIAL TRAINING

1. Purpose. To conduct evaluation flights and annual recurrent training.

2. General. Flights flown in this stage are evaluation flights; consequently, per T&R Manual, Administrative, CRP is not awarded.

3. Prerequisites. Reference the C-20G NATOPS Flight Manual, OPNAVINST 3710.7 series, and applicable publications.

4. Crew Requirement. T3P/T2P/TAC/IP/CC.

5. Flight Training. (2 Flights, 4.0 Hours).

RQD-600 2.0 E 1 ACFT

Goal. Annual NATOPS Evaluation.

Requirement. Proficiency in the utilization of all aspects of the C-20G. The proficiency expected by the evaluator in this flight shall be commensurate with the experience of the pilot under evaluation.

RQD-601 2.0 E 1 ACFT

Goal. Annual Instrument Evaluation.

Requirement. The evaluation shall be conducted per the criteria contained within the Instrument Flight Manual. File and fly an instrument round robin using all navigation equipment available. Evaluate all phases of instrument flight to include precision and non-precision approaches, partial panel, and instrument holding. Demonstrate proficiency in handling instrument related emergencies.

6. NATOPS Recurrent Training (NRT). (2 Flights, 4.0 Hours).

NRT-602/603	2.0	1 ACFT

Goal. NRT's consist of two annual flights that are developed to improve pilot proficiency.
Requirement. A solid working knowledge of aircraft systems, limitations, and emergency procedures is essential. In-flight emergency training and high-work (steep turns/stalls) will only be conducted with a designated instructor pilot. NRT's may be conducted day or night and are local area training flights. They are not NATOPS check flights, but rather line oriented training flights.

160. ORDNANCE REQUIREMENTS. Not applicable.

AIRCRAFT: C-20 MOS: 7553 CREW POSITION: PILOT

STAGE	FLIGHT TRAINING CODE	HRS	REFLY INTERVAL	MRP	T	C	R	E	REMARKS
MISSION CAPABLE TRAINING									
SFAM/INST	100	4.0	C	3.5	X	X	X		SIM
	101	4.0	C	3.5	X	X	X		SIM
	102	4.0	C	3.5	X	X	X		SIM
	103	4.0	C	3.5	X	X	X		SIM
	104	4.0	C	3.5	X	X	X		SIM
	105	4.0	C	3.5	X	X	X		SIM
	106	4.0	C	4.0	X	X	X		SIM
FAM/INST	l00	2.0	*	6.0	X	X	X		1 ACFT
	101	2.0	*	6.0	X	X	X		1 ACFT
	102	2.0	*	6.0	X	X	X		1 ACFT
NFAM	110	2.0	*	6.0	X	X	X		1 ACFT N
FAM	120	2.0	*	6.0	X	X	X		1 ACFT
T3P CK	130	2.0	*	5.0	X	X	X	X	1 ACFT
MISSION READY TRAINING									
FAM/INST	200	2.0	*	2.0	X	X	X		1 ACFT
	201	2.0	*	2.0	X	X	X		1 ACFT
	202	2.0	*	2.0	X	X	X		1 ACFT
	203	2.0	*	2.0	X	X	X		1 ACFT
	204	2.0	*	2.0	X	X	X		1 ACFT
T2P CK	210	2.0	C	5.0	X	X	X	X	1 ACFT
MISSION QUALIFICATION TRAINING									
FAM/INSTV	300	2.0	*	2.5	X	X	X		1 ACFT
	301	2.0	*	2.5	X	X	X		1 ACFT
	302	2.0	*	2.5	X	X	X		1 ACFT
	303	2.0	*	2.5	X	X	X		1 ACFT
FCF	304	2.0	*	5.0	X	X	X	X	1 ACFT
TAC CK	310	2.0	*	5.0	X	X	X	X	1 ACFT
FULL-MISSION QUALIFICATION TRAINING									
NAV	400	6.0	*	2.0	X	X	X		1 ACFT
OW TAC CK	410	6.0	C	3.0	X	X	X	X	1 ACFT

Figure 1-1.--MOS 7553 Refly Interval, Mission Readiness Percentage.

INSTRUCTOR AND SPECIAL FLIGHT/SIMULATOR PERFORMANCE REQUIREMENTS

IUT	500	2.0	*	N/A	X	X	X	1 ACFT	
	501	2.0	*	N/A	X	X	X	1 ACFT	
	502	2.0	*	N/A	X	X	X	1 ACFT	
	503	2.0	*	N/A	X	X	X	1 ACFT	
IUT CK	504	2.0	*	N/A	X	X	X	1 ACFT	

SPECIAL TRAINING

RQD	600	2.0	C	N/A			X	1 ACFT	(NATOPS)
	601	2.0	C	N/A			X	1 ACFT	(INST)
	602	2.0	*	N/A				1 ACFT	
	603	2.0	*	N/A				1 ACFT	

Figure 1-1.--MOS 7553 Refly Interval, Mission Readiness Percentage, cont.

PILOT FLIGHT UPDATE CHAINING

STAGE	FLIGHT	SORTIES UPDATED
CK	130	100,101,102,110,120
CK	210	200,201,202,203,204
CK	310	300,301,302,303
NAV	410	400
IUT	504	500,501,502,503

Figure 1-2.--Pilot Flight Update Chaining.

CHAPTER 2

C-20 CREW CHIEF

FIGURES

*** * N O T E * ***

Aircrew coordination will be briefed for all flights and aircrew positions.

CHAPTER 2

C-20 CREW CHIEF

200. PROGRAMS OF INSTRUCTION (POI) FOR BASIC, TRANSITION, CONVERSION AND REFRESHER CREW CHIEF

1. Prerequisite. Completion of an aviation flight physical and Aircrew Candidate School.

WEEKS	COURSE/PHASE	ACTIVITY
4	Aircrew Candidate School	Pensacola, FL
4	Init. Grnd Scol/Flt Sim/Maint Trng	CACT
1-3	Ground Training	MCAF/VR-51
4-16	Flight Training	MCAF/VR-51

210. GROUND TRAINING COURSES OF INSTRUCTION

COURSE	ACTIVITY
Aircrew Candidate School	Pensacola, FL
G-IV Maintenance Initial	Savannah, GA

211. SQUADRON LEVEL TRAINING

General Aircraft Description
Aircraft Emergency Systems
Personal Flying Equipment Requirements
Phase Examinations
NATOPS Open and Closed Book Examinations

212. FLIGHT SIMULATOR TRAINING

STAGE	FLIGHTS	HOURS	PERCENT
Familiarization	2	5.0	25.0

220. FLIGHT TRAINING FOR BASIC, TRANSITION, CONVERSION AND REFRESHER CREW CHIEF

1. Mission Capable Training

	FLIGHTS	HOURS	PERCENT
Basic Qualification	-	-	25.0
Familiarization	13	26.0	30.0
Mission Capable Check	1	2.0	5.0
Total for Phase	**14**	**28.0**	**60.0**

2. Mission Ready Training

	FLIGHTS	HOURS	PERCENT
Overwater Procedures	2	12.0	15.0
Total for Phase	**2**	**12.0**	**15.0**
Accumulation	**16**	**40.0**	**75.0**

3. Mission Qualification Training

	FLIGHTS	HOURS	PERCENT
Cargo Operations	2	12.0	20.0
Total for Phase	**2**	**12.0**	**20.0**
Accumulation	**18**	**52.0**	**95.0**

4. Full-Mission Qualification Training

	FLIGHTS	HOURS	PERCENT
VIP Procedures	1	6.0	5.0
Total for Phase	**1**	**6.0**	**5.0**
Accumulation Total for Basic, Transition, Conversion and Refresher Crew Chief	**19**	**58.0**	**l00.0**

230. SIMULATOR TRAINING. Familiarize all crew chiefs with the C-20 normal cockpit procedures, crew coordination, systems operations and limitations, emergency procedures and to introduce instrument flight procedures and VFR scan patterns. Flights duplicate those outlined in C-20 pilot simulator training.

240. FLIGHT/SIMULATOR PERFORMANCE REQUIREMENTS

1. General

a. The time required to train a crew chief will vary depending on previous experience. All training will be conducted in conjunction with operational flights, test flights, and/or pilot training flights.

b. Minimum crew will consist of a pilot, copilot, crew chief instructor (CCI), and crew chief under instruction (CCUI).

c. Flights annotated with an "N" shall be flown at night with the intent that these night flights will be flown at least 30 minutes after official sunset. Flights annotated with "(N)" may be flown at night.

d. All flights annotated with an "E" shall be evaluated per T&R Manual, Administrative, Chapter 4, Paragraph 4004.3.b.

e. Once qualified, a crew chief who has not flown during the last six months will be required to complete the entire syllabus.

2. Syllabus Assignment. Basic, transition, and conversion crew chiefs will be required to fly the entire syllabus.

3. Refly Interval. Figure 1-1 shows refly interval and Mission Readiness Percentage for MOS 60XX.

4. Aircrew Evaluation Flights. All crew chiefs are required to have a NATOPS evaluation form filled out annually upon completion of the following:

a. NATOPS Check (RQD-600).

b. Any flight in the mission qualification, mission ready, or full mission qualification phase as recommended by the Squadron Standardization Board.

5. Aircrew Coordination. Aircrew coordination shall be briefed for all flights and/or events.

241. MISSION CAPABLE TRAINING

1. Familiarization

a. Purpose. To familiarize the CCUI with the C-20 aircraft. Instruction will emphasize adherence to NATOPS procedures, operation of aircraft systems, and aircraft servicing.

b. Crew Requirement. TAC/T2P-T3P/CCI/CCUI.

c. Flight Training. (14 Flights, 28.0 Hours).

FAM-l00 2.0 T,C,R 1 ACFT

Goal. Introduce the CCUI to the C-20G aircraft.

Requirement. Crew brief/debrief. Check/verify aircraft status. Crew Chief duties and responsibilities. Preflight/Postflight. Checklist procedures. Emergency procedures. Location and use of survival equipment. CAS/Annunciator indications. Emergency Exits and entrance. Emergency equipment and oxygen use. Takeoff emegencies. Miscellaneous in-flight malfunctions. APU malfunctions. Jump seat duties. Loadmaster responsibilites. Flight Attendant responsibilities.

FAM-101 2.O T,C,R 1 ACFT

Goal. Review previous instruction and introduce the electrical system.

Requirement. Electrical System Operation. EPMP operation and associated indications. Battery integrity check. Emergency/Abnormal Procedures: Alternator/Converter Failure (dual and single), APU in-flight operation (ELWS), L-R/APU Failed BRG, L-R/APU ALT HOT, L-R Converter HOT/FAN FAIL, TRU HOT/FAIL, L-R AC/DC Power Fail, Essential AC/DC BUS FAULT, Battery only operation/SEP operation, BATT 1-2 Charger Fail, EPMP Power Fail. Jump seat duties. MEL (Chapter 5). Limitations (Chapter 4). Perform and discuss cards. ACT: Adaptability and flexibility.

FAM-102 2.0 T,C,R 1 ACFT

Goal. Review previous instruction and introduce hydraulic systems.

Requirement. Hydraulic System (general operation). Engine driven hydraulic pumps. Auxiliary/Utility pumps. Normal start indications. Emergency/Abnormal Procedures: Comb Hyd Fail message, Flt Hyd Fail message, Dual Hyd system Failure, Flt/Comb/Utl Hyd Fluid Hot message, partial flap landing, T/R unlock or deploy in-flight, Yaw Damper failure. Cargo door operation. Jump seat duties. MEL. Limitaions. Perform and discuss cards. ACT: Leadership. Hydraulic system servicing (ground support equipment/engines running).

FAM-103 2.0 T,C,R 1 ACFT

Goal. Review previous instruction and introduce the landing gear system.

Requirement. Landing Gear (general operation). Brakes/Anti-skid operation. Nutcracker system. Emergency Procedures: Anti-skid fail message, Brake fail message, Anti-skid offbraking, Hot brakes, Brake Pedal message, Multiple brake fail messages, Alternate Braking, Landing Gear Failure to Extend, Landing Gear Retraction Following Alternate Gear Extension, Landing Gear Failure to Retract, Partial Gear Landing, Tire Failure, Nose Wheel Steering Failure, Nutcracker System Failure, Nose Gear Shimmy. MEL. Limitations. Jump seat duties. Perform and Discuss cards. ACT: Assertiveness. Tire/Strut servicing.

FAM-104 2.0 T,C,R 1 ACFT

Goal. Review previous instruction and introduce the fuel system.

Requirement. Fuel System (general operation). Fuel Balancing procedures. Emergency/Abnormal Procedures: Fuel Boost Pump Failure, Failure of Two Boost Pumps on one side, Fuel Level Low Message, L/R Fuel Press Low message, L/R Fuel Filter message, L/R Main Fuel Fail, L/R ALT Fuel Fail, Minimum Fuel Go-Around, Suction Feed. Jump seat duties. MEL. Limitations. Perform and Discuss cards. ACT: Adaptability/Flexibility. Fuel System Servicing (Pressure Fueling, Gravity Fueling, Defueling).

FAM-l05 2.0 T,C,R 1 ACFT

Goal. Review previous instruction and introduce the flight control system.

Requirement. Flight Controls (general operation). Single Rudder Limit/Rudder Limit message. Flap/Stabilizer operation. Emergency/Abnormal Procedures: Flight Control Runaway to Hardover Position, Immovable Flight Controls, Manual Flight Controls, Stall Barrier Malfunction, Ground Spoiler Failure, Runaway Electrical Elevator Trim, MACH Trim Compensation Failure, Failure of Stabilizer/Flap Interconnect, Wing Flap-Alternate Operation, Undesired Flap Movement, ACFT CONFIG Message. Jump seat duties. MEL. Limitaions. Perform and Discuss Cards. ACT: Decision Making. Aircraft Towing Procedures.

FAM-106 2.0 T,C,R 1 ACFT

Goal. Review previous instruction and introduce pneumatic system, anti-ice system, and pitot/static system.

Requirement. Pneumatic System, Wing and Cowl Anti-Ice System, and Pitot/Static System (general operation). Emergency/Abnormal Procedures: Pylon Hot message, AFT Equipment Hot message, L/R Bleed Air Hot message, L/R Bleed Air Pressure HI message, L/R Wing Hot message, L/R Wing Temp LOW

message, L/R Cowl A/I OVHT message, L/R Cowl PRESS LOW message, Pitot Heat Fail message, Standby Pitot Heat Fail message, TAT/SAT Probe Heat Failure, Windshield Heat Failure, Windshield Crack/Failure. Jump seat duties. MEL. Limitations. Perform and Discuss Cards. ACT: Mission Analysis.

FAM-107 2.0 T,C,R 1 ACFT

Goal. Review previous instruction and introduce the air conditioning system and the pressurization system.

Requirement. Air Conditioning Operation. Pressurization Operation. Emergency/Abnormal Procedures: Rapid Decompression/Emergency Descent, Loss of Automatic Pressurization Control, Pressurization System-Rate Limiting, Cabib DFRN 9.6/9.8 message, Cabin Pressure Low message, Cool TURB HOT message, Air Conditioning Smoke, Smoke and Fume Evacuation, DU 1-2-3-4-5-6 HOT, DU 1-2 FAN Fail, SG 1-2-3 HOT, IRS 1-2 FAN Fail, AHRS COOL Fail. Oxygen System Operation/Duration Charts. Use of Portable Oxygen. Jump seat duties. MEL. Limitations. Perform and Discuss Cards. ACT: Situational Awareness. Oxygen System Servicing.

FAM-108 2.0 T,C,R 1 ACFT

Goal. Review previous instruction and introduce the Tay 611-8 Engines.

Requirement. Engines and related systems. Emergency/Abnormal Procedures: Engine emergency after V1, In-Flight Eng Shutdown checklist, Engine Failure, Single Engine Approach, Single Engine Go-Around, Dual Engine Failure, Dual Engine Out Landing Procedures, Air Start Immediate/Normal, Start Valve Failure to Open, Engine Failure to Start, HOT Start, Start Valve Failure to Close, Engine Vibration on the Ground, Engine Synchronizer Failure, Approach Idle System Failure, L/R Oil Pressure Low message, L/R Oil Filter Bypass message. Jump seat duties. MEL. Limitations. Engine Oil Servicing (Normal/Emergency).

FAM-109 2.0 T,C,R 1 ACFT

Goal. Review previous instruction and introduce the APU/Engine Fire Warning and Fault tests.

Requirement. APU Fire Warning Test. Engine Fire and Fault Test. Emergency/Abnormal Procedures: APU Fire, Engine Fire on the Ground, Engine Fire, Severe Vibration, or Separation, L/R Engine HOT Message, L/R Pylon HOT message, Engine Warning System Malfunction, Fire Detection System Fault, Smoke/Flame Detect message, Fire in the Cabin or Cockpit Area, Smoke and Fume Evacuation, AFT LAV Smoke Annunciator, smoke removal from the baggage compartment or lavatory. Jump seat duties. MEL. Limitations. Performance (General, Takeoff, and Climb). Observe Form F Preparation.

FAM-110 2.0 T,C,R 1 ACFT

Goal. Review previous instruction and introduce APU operation.

Requirement. APU Operation (Normal). Emergency/Abnormal Procedure: APU Fire, APU Alternator Failure, APU ALT BRG FAIL, APU ALT HOT, APU MASTER WARNING, APU EXCEEDENCE, APU In-Flight Operation (Alternate Electrical Source), Electrical Load Warning System, E-BATT DISCH, E-BATT FAIL. Cold Weather Operations. Cross Wind Landings. Performance: Range Systems, Endurance. Use of Survival Equipment. Cargo Door Operation. Perform Form F. MEL. Limitations. APU Oil System servicing.

FAM-111 2.0 T,C,R 1 ACFT

Goal. Review previous instruction and introduce the Flight Management System (FMS).

Requirement. FMS Operation (Normal). Display Switching/Symbol Generator Control Check. Abnormal/Emergency Procedures: Autopilot Malfunction, Autothrottle Malfunction, Display System Failure, AFGCS Failure, Review all DAU CAS messages, review all FGC CAS messages, Review all IRS/NAV CAS messages, In-Flight Communications Failure, Anti-Hijacking Procedures. Overwater Procedures. Performance: Descent, Landing. Hot Weather/Desert Operations. Wind Shear/Micro Burst/Turbulence Procedures. Volcanic Ash Avoidance. MEL. Limitations. Perform Form F. Potable Water System servicing. Waste Disposal System servicing.

FAM-112 2.0 T,C,R 1 ACFT

Goal. Prepare CCUI for NATOPS Check Flight.

Requirement. Aircraft Servicing. Daily/Turnaround/Special Inspections. APU/Engine Systems/Operations. Weight and Balance. Cockpit Discipline/Jump Seat Duties. Checklists: Normal/Emergency/Abnormal. Critical Action Items. Fire Detection/Extinguishing. Electrical Systems. Lighting Systems. Fuel System. Pneumatic System. Air Conditioning System. Cabin Pressurization System. Ice/Rain Protection Systems. Hydraulic Systems. Flight Controls. Landing Gear/Brakes. Oxygen system. Cargo System. Performance. Flight Management System. Minimum Equipment list (MEL). Limitations. ACT (Seven Skills).

2. Crew Chief Check

a. Purpose. To demonstrate the CCUI’s ability to meet NATOPS evaluation criteria for crew chief and to ensure the CCUI has attained a high degree of proficiency and knowledge of all aircraft systems as well as the requisite level of Aircrew Coordination Training.

b. Crew Requirement. TAC/T2P-T3P/CCI/CCUI.

c. Prerequisite. NATOPS Open and Closed book exams.

d. Flight Training. (1 Flight, 2.0 Hours).

CK-120 2.0 T,C,R E 1 ACFT

Goal. NATOPS check.

Requirement. CCUI to demonstrate the ability to meet NATOPS qualification per NATOPS evaluation criteria. CCUI will demonstrate a high degree of proficiency and knowledge of the aircraft systems covered in all previous instruction to a NATOPS Evaluator. Individual may fly as a qualified crew chief after completing flight CK-120, while completing the remainder of the flight syllabus.

242. MISSION READY TRAINING

1. International/Overwater Procedures

a. Purpose. To instruct the CC on the C-20G mission with regard to long range international and overwater flights.

b. Crew Requirement. TAC/T2P-T3P/CCI/CCUI.

c. Flight Training. (2 Flights, 12.0 Hours).

NAV-200/201	6.0	T,C,R 1 ACFT

Goal. Introduce CC to international/long range C-20G flight operations.

Requirement. CC to participate in a multiple leg, long range, overseas logistics flight with a RON. Review flight planning and aircraft servicing for an international flight.

243. MISSION QUALIFICATION TRAINING

1. Cargo Operations

a. Purpose. To introduce the CC to cargo operations and the various types of aircraft cargo configuration rigs.

b. Crew Requirement. TAC/T2P-T3P/CCI/CCUI/L.

c. Flight Training. (2 Flights, 12.0 Hours).

CL-300/301	6.0	T,C,R 1 ACFT

Goal. Introduce the CC to cargo load operations and the different types of cargo rigs.

Requirement. Review load planning, cargo rigs, weight and balance, cargo loading systems and equipment, cargo door usage. Crew chief will participate in the cargo loading of the C-20G aircraft with a qualified loadmaster.

244. FULL-MISSION QUALIFICATION TRAINING

1. Preflight and Code 7 Procedures

a. Purpose. To introduce the CC to the proper preflight set up of the aircraft and the procedures for carrying passengers who are Code 7 or above.

b. Crew Requirement. TAC/T2P-T3P/CCI/CCUI/L.

c. Flight Training. (1 Flight, 6.0 Hours).

VIP-400 6.0 T,C,R 1 ACFT

Goal. The CC will participate in a flight carrying a passenger that is a Code 7 or above.
Requirement. Emphasis will be on VIP preflight planning, VIP aircraft configuration, and VIP procedures.

250. INSTRUCTOR AND SPECIAL FLIGHT/SIMULATOR PERFORMANCE REQUIREMENTS

1. Instructor Under Training (IUT)

a. Purpose. To qualify a CC as an instructor on the C-20G aircraft.

b. Crew Requirement. TAC/T2P-T3P/CCI/CCIUT.

c. Prerequisite. Recommendation from the Pilot Standardization Board.

d. Flight Training. (3 Flights, 6.0 Hours).

IUT-500 2.0 T,C,R 1 ACFT

Goal. The CCIUT will observe a CCI train a CCUI.

Requirement. The CCIUT will observe a CCI train a CCUI on a syllabus training flight.

IUT-501 2.0 T,C,R 1 ACFT

Goal. The CCIUT will demonstrate the ability to instruct a CCUI on a syllabus training flight. The instructor under training will demonstrate the required knowledge of aircraft systems, normal procedures, abnormal/emergency procedures, limitations, and Aircrew Coordination Training.

Requirement. CCIUT will demonstrate the ability to instruct a CCUI.

IUT-502 2.0 T,C,R 1 ACFT

Goal. CCI qualification/standardization flight.

Requirement. Demonstrate the requisite knowledge, instructional ability and standardization expected of a CCI.

251. SPECIAL TRAINING

1. Annual NATOPS Evaluation Flight

a. Purpose. To conduct annual NATOPS evaluation flight. Flights flown in this stage are evaluation flights.

b. Crew Requirement. TAC/T2P-T3P/CCI/CC.

c. Prerequisite. Reference the C-20G NATOPS Flight Manual, OPNAVINST 3710.7_, and applicable publications.

d. Flight Training. (1 Flight, 2.0 Hours).

RQD-600 2.0 E 1 ACFT

Goal. Annual NATOPS Evaluation.

Requirement. Proficiency as a C-20G crew chief in all aspects of the aircraft and its mission.

260. ORDNANCE REQUIREMENTS. Not applicable.

AIRCRAFT: C-20 MOS: 6246 CREW POSITION: CREW CHIEF

STAGE	FLIGHT TRAINING CODE	HRS	REFLY INTERVAL	MRP	T	C	R	E	REMARKS
MISSION CAPABLE TRAINING									
FAM	100	3.0	*	4.0	X	X	X		1 ACFT
	101	3.0	*	4.0	X	X	X		1 ACFT
	102	3.0	*	4.0	X	X	X		1 ACFT
	103	3.0	*	4.0	X	X	X		1 ACFT
	104	3.0	*	4.0	X	X	X		1 ACFT
	105	3.0	*	4.0	X	X	X		1 ACFT
	106	3.0	*	4.0	X	X	X		1 ACFT
	107	3.0	*	4.0	X	X	X		1 ACFT
	108	3.0	*	4.0	X	X	X		1 ACFT
	109	3.0	*	4.0	X	X	X		1 ACFT
	110	3.0	*	4.0	X	X	X		1 ACFT
	111	3.0	*	4.0	X	X	X		1 ACFT
	112	3.0	*	5.0	X	X	X		1 ACFT
CK	120	3.0	*	7.0	X	X	X		1 ACFT
MISSION READY TRAINING									
NAV	200	6.0	3	7.5	X	X	X		1 ACFT
	201	6.0	3	7.5	X	X	X		1 ACFT
MISSION QUALIFICATION TRAINING									
CL	300	6.0	3	10.0	X	X	X		1 ACFT
	301	6.0	3	10.0	X	X	X		1 ACFT
FULL-MISSION OUALIFICATION TRAINING									
VIP	400	6.0	C	5.0	X	X	X		1 ACFT

Figure 2-1.--MOS 6246 Refly Interval, Mission Readiness Percentage.

CREW CHIEF FLIGHT UPDATE CHAINING

STAGE	FLIGHT	FLIGHTS UPDATED
CK	120	100,101,102,103,104,105,106,107,108,109,110,111,112
NAV	210	200
CL	301	300

Figure 2-2.--MOS 6246 Crew Chief Flight Update Chaining.

CHAPTER 3

C-20 LOADMASTER

FIGURES

*** * N O T E * ***

Aircrew coordination will be briefed for all flights and aircrew positions.

CHAPTER 3

C-20 LOADMASTER

300. POI FOR BASIC, CONVERSION AND REFRESHER LOADMASTER

1. Prerequisite. Completion of an aviation flight physical and Aircrew Candidate School.

WEEKS	COURSE/PHASE	ACTIVITY
4	Aircrew Candidate School	Pensacola, FL
2	C-20G Loadmaster School	NAS Ft Worth, TX
1	Ground Training	MCAF/VR-51
8	Flight Training	MCAF/VR-51

310. GROUND TRAINING

1. General. The trainee will attend the C-20G Loadmaster Course prior to completion of training.

2. Training

Week 1

Math Test. Introduction to Weight and Balance. WAM Formula for aircraft. Percent of MAC formula. Adding and Removing Cargo. Aircraft A, B, and C Charts. Aircraft E Charts. SECO codes and configurations. Form F Intro (DD-365-4). Form F practice. Form F correction Block/Practice. Loadshift Formula. Load planning. Support Equipment/Hand Signals and Cargo Loading System. Cargo Door Operation. Week One Test.

Week 2

HAZMAT. Cargo restraint. Area PSI and Shoring. Cargo Pallets and Nets (build-up). Oversize and Penetrating Cargo. Cargo/Pax Manifest. Logistics Flight Record (LFR). Border Clearance. Practical Loadmaster Application. Review. Final Exam. Course Critique. Graduation.

311. COURSES OF INSTRUCTION

COURSE	ACTIVITY
Aircrew Candidate School	Pensacola, FL
C-20G Loadmaster School	NAS Ft Worth, TX

312. SQUADRON LEVEL TRAINING

General Aircraft Description
Aircraft Systems
Aircraft Emergency Equipment and Systems
Emergency Procedures
Loadmaster Equipment
Cargo Restraint Equipment
Weight and Balance Planning
Personal Flying Equipment Requirements
Phase Examinations

Aircraft Mission
NATOPS Open and Closed Book Examinations

320. FLIGHT TRAINING FOR BASIC, CONVERSION, AND REFRESHER

1. Mission Capable Training

STAGE	SORTIES	HOURS	PERCENT
Basic Qualification	-	-	25.0
Familiarization	1	2.0	5.0
Cargo and Passenger Loading	8	16.0	25.0
NATOPS Evaluation Flight	1	2.0	5.0
Total for Phase	**10**	**20.0**	**60.0**

2. Mission Ready Training

STAGE	SORTIES	HOURS	PERCENT
Overwater Procedures	2	12.0	15.0
Total for Phase	**2**	**12.0**	**15.0**
Accumulation	**12**	**32.0**	**75.0**

3. Mission Qualification Training

STAGE	SORTIES	HOURS	PERCENT
VIP Procedures	2	12.0	20.0
Total for Phase	**2**	**12.0**	**20.0**
Accumulation	**14**	**44.0**	**95.0**

4. Full-Mission Qualification Training

STAGE	SORTIES	HOURS	PERCENT
Maximum/Hazardous Cargo	2	12.0	5.0
Total for Phase	**2**	**12.0**	**5.0**
Accumulation Total for Basic and Conversion Loadmaster	**16**	***56.0**	**100.0**

NOTE: * Indicates estimated flight hours to completion.

321. IUT

STAGE	SORTIES	HOURS
IUT	2	9.0
Instructor Check Flight	1	3.0
	3	**12.0**

330. SIMULATOR TRAINING. Not Applicable.

340. FLIGHT/SIMULATOR PERFORMANCE REQUIREMENTS

1. The time to qualify a C-20G Loadmaster will vary depending on previous experience, flight time, and aircraft availability. Training will generally be accomplished in conjunction with operational flights. A Basic Loadmaster shall be defined as a designated Flight Attendant, who has completed training and has been subsequently designated as a Loadmaster on the C-20G aircraft. A Refresher Loadmaster shall be defined as a C-20G Loadmaster who has been

assigned to other duty preventing currency in the C-20G aircraft for a period exceeding 12 months. Basic Loadmasters will complete all stages of training.

2. All of the duties will be performed IAW OPNAVINST 3710.7, current squadron directives, and the C-20G NATOPS Manual.

3. Aircrew Coordination. Aircrew coordination shall be briefed for all flights and/or events.

341. MISSION CAPABLE TRAINING

1. Familiarization

a. Purpose. To familiarize the Loadmaster Under Instruction (LUI) with the C-20G aircraft and the duties and responsibilities of the Loadmaster during preflight, flight, Emergency/Abnormal flight and postflight.

b. Crew Requirement. TAC/T2P-T3P/CC/LI/LUI.

c. Flight Training. (1 Flight, 2.0 Hours).

FAM-100	2.0	C, R 1 ACFT

Goal. Introduce the LUI to the C-20G aircraft and introduce responses/action required during each airborne/ground emergency.

Requirements. Preflight Preparation. Preflight Inspection. Thru Flight Inspection. Posflight Inspection. Emergency/Abnormal Procedures: Fuselage Fire, Smoke/Fume Elimination, Door Warning in Flight, Rapid Decompression, Crash Landing/Ditch on Takeoff, Abnormal Landing, Ditching, APU Fire. Primary/Secondary Exits for Ditch and Ground Evacuation. Identify Aircraft Riggs A,B,C,D,K.

2. Cargo and Passenger Loading

a. Purpose. To instruct and qualify the LUI in the performance of the duties required to load cargo and passengers. Emphasis will be placed on adherence to NATOPS procedures, operation of aircraft equipment and all duties and procedures required of a qualified C-20G loadmaster.

b. Crew Requirement. TAC/T2P-T3P/CC/LI/LUI.

c. Flight Training. (8 Flights, 16.0 Hours).

CPL-110	2.0	C, R 1 ACFT

Goal. Introduce the LUI to passenger/VIP/baggage loading and briefing procedures. Additionally, the LUI will be instructed on the proper preflight and post flight procedures.

Requirement. Preflight Inspection. Thru Flight Inspection. Postflight Inspection. Departure Brief. Thru Brief. Landing Brief. Abnormal Landing Brief. Ditching Brief. Passenger Handling. Passenger Identification. Passenger Attire. VIP and Dependent Handling. Baggage Handling.

CPL-111 2.0 C, R 1 ACFT

Goal. Continuation of passenger and baggage loading procedures, emergency and abnormal procedures training and Weight and Balance form computation.

Requirement. Preflight Inspection. Thru Flight Inspection. Posflight Inspection. Passenger Briefings. Rapid Decompression. Emergency Procedures. Primary/Secondary Exits for Ditching and Ground evacuation. Weight and Balance Related Publications. Weight and Balance Charts and Forms. Weight and Balance Terminology.

CPL-112 2.0 C, R 1 ACFT

Goal. Introduce the LUI to the different types of cargo, hazardous cargo, U.S. Customs and Agriculture, mail and classified material handling, air terminal procedures and cargo inspections.

Requirement. Preflight Inspection. Thru Flight Inspection. Postflight Inspection. Load Planning. Emergency Procedures. Form F. Logistics Flight Record. Customs. Agriculture. Mail Handling. Classified Material Handling. Arms and Ammunition. Hazardous Cargo. Cargo Inspection. Cargo Loading/Unloading. Passenger Handling. Air Terminal Procedures. Baggage Handling. Crew Coordination. Oversized Cargo. Piercing/Penetrating Cargo. Shoring. Restraint Requirements. Live Animals.

CPL-113 2.0 C, R 1 ACFT

Goal. Introduction to Emergency Exits, Escape Routes, and Emergency/Survival Equipment.

Requirement. Preflight Inspection. Thru Flight Inspection. Post Flight Inspection. Forward Entrance Door. Service Door/Slide. Aft Baggage Door. Cargo Door. Operation of Forward Air Stair Door with/without Aircraft Power. Emergency Exits. Overwing Exits and Escape Routes. Emergency and Survival Equipment (lifevests, liferafts, survival kits, first-aid kits, blankets, crash axe, portable fire extinguisher).

CPL-114 2.0 C, R 1 ACFT

Goal. Introduce the oxygen systems and masks and the emergency lighting system.

Requirement. Preflight Inspection. Thru Flight Inspection. Postflight Inspection. Automatic Mask Deployment. Manual Mask Deployment. First Aid Oxygen System. Portable Oxygen Cylinders. Passenger/Crew Oxygen Masks. Normal Lighting. Evacuation lights. Standby Lighting. Public and Priority Address System. Chimes and Call Lights.

CPL-115 2.0 C, R 1 ACFT

Goal. Introduce the water system, galley, and lavatory servicing.

Requirement. Preflight Inspection. Thru Flight Inspection. Postflight Inspection. Emergency procedures. Potable Water System and Tank Capacity. Filters and Shutoff. Servicing Panel. Maximum Servicing Pressure. Cold Weather Servicing. Waste Tank and Water Tank Capacities. Minimum/Maximum Servicing Pressure. Toilet Pump Motor Flushing Cycle. Toilet Servicing/Panel. Lavatory Cold Weather Servicing. Lavatory Water Shutoff. Ovens/Hot Cups. Refrigerator. Galley Electrical Control Panel. Galley Water Shutoff.

CPL-116 2.0 C, R 1 ACFT

Goal. Introduce First Aid.

Requirement. Preflight Inspection. Thru Flight inspection. Postflight Inspection. Bleeding (Direct pressure, pressure points, tourniquet). Shock (symptoms and treatment). Hyperventilation (symptoms and treatment). Fainting (symptoms and treatment). Broken Bones (types and treatment). Burns (types). Artificial Respiration. Emergency Procedures.

CPL-117 2.0 C, R 1 ACFT

Goal. Cargo Loading.

Requirement. Preflight Inspection. Thru Flight Inspection. Postflight Inspection. Cargo Loading System. Cargo Loading Equipment: Forklift, K-Loader, High Lift Truck, Roller tongs, Pallets, Nets. Cargo Restraining. Doors.

3. NATOPS Check Flight

a. Purpose. To qualify an LUI as a Mission Capable Loadmaster on the C-20G aircraft. Individual may fly as a qualified loadmaster, after completing flight CK-130, while completing the remainder of the flight syllabus.

b. Crew Requirement. TAC/T2P-T3P/CC/LI/LUI.

c. Prerequisite. NATOPS open and closed book exams.

d. Flight Training. (1 Flight, 2.0 Hours).

CK-130 2.0 C, R E 1 ACFT

Goal. Evaluation flight.

Requirement. The LUI will successfully complete a flight evaluation administered by a designated NATOPS Loadmaster Evaluator. All phases of Mission Capable training will be reviewed with emphasis on NATOPS procedures, squadron procedures and accurate and timely Weight and Balance Form computation. All emergency procedures will be conducted or simulated per current NATOPS directives. Egress procedures, with and without passengers, will be conducted and/or simulated.

342. MISSION READY TRAINING

1. Overwater Procedures

a. Purpose. To qualify the Mission Capable Loadmaster in overwater procedures with cargo and/or passengers aboard the aircraft.

b. Crew Requirement. TAC/T2P-T3P/CC/LI/LUI.

c. Flight Training. (2 Flights, 12.0 Hours).

CPL-200 6.0 C, R 1 ACFT

Goal. The LUI observes and assists a qualified loadmaster during an overwater flight with passengers and/or cargo aboard.

Requirement. The LUI will observe and assist the loadmaster during preflight, in-flight and post flight duties. Emphasis will be placed on maximum passenger loads for overwater/ overland flights, proper baggage handling, accurate passenger manifests, Weight and Balance Form, legloads, required Customs/Agriculture procedures, appropriate emergency equipment usage and required briefings.

CPL-201 6.0 C, R 1 ACFT

Goal. Stage Check. The LUI will perform all duties required of a loadmaster on an overwater flight with passengers and/or cargo aboard while under the supervision of a NATOPS Evaluator. Successful accomplishment of this flight will result in the LUI being designated as a Mission Ready Loadmaster on the C-20G aircraft.

Requirement. The LUI will maintain accurate Weight and Balance Forms, Customs/Agriculture Inspection Documents, passenger manifests and legload information. The LUI will conduct the appropriate preflight, in-flight and post flight duties.

343. MISSION QUALIFICATION TRAINING

1. VIP Procedures

a. Purpose. To qualify a LUI in the proper procedures when carrying passengers who are Code 7 or above.

b. Crew Requirement. TAC/T2P-T3P/CC/LI/LUI.

c. Flight Training. (2 Flights, 12.0 Hours).

VIP-300 6.0 C, R 1 ACFT

Goal. The LUI will observe a qualified loadmaster on a flight carrying a passenger that is Code 7 or above.

Requirement. Emphasis will be placed on passenger comfort, VIP baggage handling, configuration of the aircraft, and the installation of the appropriate VIP placard. Weight and Balance Form computation will be accomplished by the LI.

VIP-301 6.0 C, R 1 ACFT

Goal. Progress check.

Requirement. The LUI will perform all duties of a loadmaster on a flight carrying a passenger who is a Code 7 and/or above. Emphasis will be placed on passenger comfort, VIP baggage handling, aircraft preparation, and an accurate Weight and Balance Form.

344. FULL-MISSION QUALIFICATION TRAINING

1. Hazardous Cargo Familiarization

a. Purpose. To familiarize and qualify the mission qualified loadmaster in the proper procedures when carrying hazardous cargo.

b. Crew Requirement. TAC/T2P-T3P/CC/LI/LUI.

c. Flight Training. (1 Flight, 6.0 Hours).

CPL-400	6.0	C, R 1 ACFT

Goal. The LUI will observe a qualified loadmaster on a flight involving hazardous cargo.

Requirement. The LI will observe a qualified loadmaster in the placing of hazardous cargo aboard the aircraft. The LUI will demonstrate a thorough knowledge and understanding of all restrictions concerning passengers while transporting hazardous cargo per MCO P4030.19.

2. Maximum Cargo Procedures

a. Purpose. To familiarize and qualify the mission qualified loadmaster in procedures when carrying maximum cargo.

b. Crew Requirement. TAC/T2P-T3P/CC/LI/LUI.

c. Flight Training. (1 Flight, 6.0 Hours).

CPL-401	6.0	C, R 1 ACFT

Goal. The LUI will observe and assist a qualified loadmaster on a flight carrying maximum cargo.

Requirement. Emphasis will be placed on the reconfiguration of the aircraft, if required. The LUI will compute the primary Weight and Balance Form. The loading of the aircraft must be accomplished to allow the minimum amount of interference at intermediate stops with due consideration to center of gravity limits. The LUI will ensure the cargo is properly restrained to the pallet and that no pallet exceeds the appropriate "G" factor limitation.

350. INSTRUCTOR AND SPECIAL FLIGHT/SIMULATOR PERFORMANCE REQUIREMENTS

1. Instructor Under Training (IUT)

a. Purpose. To qualify a loadmaster as a Loadmaster Instructor (LI) in the C-20G aircraft.

b. Crew Requirement. TAC/T2P-T3P/CC/LI/LIUT.

c. Prerequisite. Pilot Standardization Board Recommendation.

d. Flight Training. (3 Flights, 6.0 Hours).

IUT-500 2.0 C, R 1 ACFT

Goal. The student Instructor Loadmaster will observe a LI train a LUI.

Requirement. The student Instructor Loadmaster will observe a LI train a LUI on a syllabus flight required by MCO P5300.17. The LI will emphasize the LUI's accuracy of Weight and Balance Forms, center of gravity limits, knowledge of aircraft, emergency procedures and proper cargo restraint.

IUT-501 2.0 C, R 1 ACFT

Goal. The student Loadmaster Instructor will demonstrate his ability to instruct a LUI, while under the supervision of a LI.

Requirement. The student Loadmaster Instructor will instruct a LUI in all areas of safety and crew position responsibilities. Accuracy of all paperwork, Weight and Balance Forms, "legload" entries, center of gravity restrictions, and required tie down procedures according to "G" factor restrictions will be emphasized.

IUT-502 2.0 C, R E 1 ACFT

Goal. Student Loadmaster Instructor Check Flight.

Requirement. The student Loadmaster Instructor will perform all duties required of a LI on a flight with a LUI.

351. SPECIAL TRAINING

1. Annual NATOPS Evaluation

a. Purpose. To conduct annual NATOPS evaluation. Flights flown in this stage are evaluation flights and MRP is not awarded.

b. Crew Requirement. TAC/T2P-T3P/CC/LI/LUI.

c. Prerequisite. Reference the C-20G NATOPS Flight Manual, OPNAVINST 3710.7_, and applicable publications.

2. Flight Training. (1 Flight, 2.0 Hours).

RQD-600 2.0 E 1 ACFT

Goal. Annual NATOPS Evaluation.

Requirement. Proficiency as a C-20G loadmaster in all aspects of the aircraft and its mission.

360. ORDNANCE REQUIREMENTS. Not applicable.

AIRCRAFT: C-20 CREW POSITION: LOADMASTER

STAGE	FLIGHT/ TRAINING CODE	REFLY HRS	INTERVAL	MRP	C	R	E	REMARKS
MISSION CAPABLE TRAINING								
FAM	100	2.0	*	6.0	X	X		1 ACFT
CPL	110	2.0	*	5.0				1 ACFT
	111	2.0	*	5.0				1 ACFT
	112	2.0	*	5.0				1 ACFT
	113	2.0	*	5.0	X	X		1 ACFT
	114	2.0	*	5.0		X		1 ACFT
	115	2.0	*	5.0		X		1 ACFT
	116	2.0	*	5.0		X		1 ACFT
	117	2.0	*	5.0		X		1 ACFT
NATOPS CK	130	2.0	C	14.0	X	X	X	1 ACFT
MISSION READY TRAINING								
CPL	200	6.0	C	7.5	X	X		1 ACFT
	201	6.0	C	7.5	X	X		1 ACFT
MISSION QUALIFICATION TRAINING								
VIP	300	6.0	C	10.0	X	X		1 ACFT
	301	6.0	C	10.0	X	X		1 ACFT
FULL-MISSION QUALIFICATION TRAINING								
CPL	400	6.0	C	2.5	X	X		1 ACFT
	401	6.0	C	2.5	X	X		1 ACFT
INSTRUCTOR UNDER TRAINING								
IUT	500	3.0	C	---	X	X		1 ACFT
	501	3.0	C	---	X	X		1 ACFT
	502	3.0	C	---	X	X	X	1 ACFT

Figure 3-1.--Loadmaster Refly Interval, Mission Readiness Percentage.

LOADMASTER FLIGHT UPDATE CHAINING

STAGE	FLIGHT	FLIGHTS UPDATED
CK	130	100,110,111,112,113,114,115,116,117
VIP	301	300
CPL	401	400
IUT	502	500,501

Figure 3-2.--Loadmaster Flight Update Chaining.